

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1(Currently Amended). A process for removing a pollutant through a foliar application, comprising the steps of:

growing a live fern plant selected from the group consisting of ~~Pteridaceae, Adiantaceae, Aspleniaceae, Dryopteridaceae~~ Pteridaceae, Adiantaceae, Aspleniaceae, Dryopteridaceae, and ~~Oleandraceae~~ Oleandraceae, in an environment site containing the pollutant; and

removing a portion of the pollutant through foliar contact with a part of the live fern plant.

Claim 2(Original). The process of claim 1, wherein the environment site includes: a contaminated aqueous solution.

Claim 3(Original). The process of claim 1, wherein the environment site includes: a contaminated water selected from at least one of: ground water and surface water.

Claim 4(Original). The process of claim 1, wherein the environment site includes: a contaminated wetlands.

Claim 5(Original). The process of claim 1, wherein the environment sites includes: a contaminated soil.

Claim 6(Original). The process of claim 1, wherein the environment site includes: a contaminated air.

Claim 7(Currently Amended). The process of claim 6, ~~wherein the contaminated air includes: the step of~~ further includes the step of contaminating the air environment by spraying the pollutant onto the plant part.

Claim 8(Original). The process of claim 7, wherein the pollutant includes: arsenite.

Claim 9(Original). The process of claim 7, wherein the pollutant includes: arsenate.

Claim 10(Original). The process of claim 1, wherein the live plant part includes: a live leaf portion.

Claim 11(Original). The process of claim 10, wherein the pollutant portion includes approximately 110 to approximately 4610 mg/kg of arsenic concentration per live leaf portion.

Claim 12(Original). The process of claim 1, wherein the live plant part includes: a live stem portion.

Claim 13(Original). The process of claim 12, wherein the pollutant portion includes approximately 110 to approximately 1,160 mg/kg of arsenic concentration per live stem portion.

Claim 14(Original). The process of claim 1, wherein the live plant part includes: a live spore portion.

Claim 15(Original). The process of claim 1, wherein the pollutant portion includes approximately 760 to approximately 3,710 mg/kg of arsenic concentration per live spore portion.

Claim 16(Canceled).

Claim 17(Currently Amended). The process, according to claim 1, wherein said fern plant is of the family ~~Pteridaceae~~ Pteridaceae.

Claim 18(Original). The process, according to claim 1, wherein said fern plant is of the family *Adiantaceae*.

Claim 19(Original). The process, according to claim 1, wherein said fern plant is *Adiantum raddianum*.

Claim 20(Original). The process, according to claim 1, wherein said fern plant is of the genus *Pteris*.

Claim 21(Original). The process, according to claim 1, wherein said fern plant is *Pteris cretica parkerii*.

Claim 22(Original). The process, according to claim 1, wherein said fern plant is a *Pteris cretica* albo-lineata.

Claim 23(Original). The process, according to claim 1, wherein said fern plant is a *Pteris cretica* mayii.

Claim 24(Original). The process, according to claim 1, wherein said fern plant is a *Pteris vittata*.

Claim 25(Original). The process, according to claim 1, wherein up to approximately 100% of arsenic in the environment site is being removed.

Claim 26(Currently Amended). A process for removing a pollutant through an excised plant part, comprising the steps of:

excising a part of a live fern plant selected from the group consisting of ~~Pteridaceae, Adiantaceae, Aspleniaceae, Dryopteridaceae~~ Pteridaceae, Adiantaceae, Aspleniaceae, Dryopteridaceae, and Oleandracea  
Oleandracea;

applying the excised plant part to an environment site containing the pollutant; and

removing a portion of the pollutant through contact with the excised plant part.

Claim 27(Original). The process of claim 26, wherein the excised plant part includes: an excised leaflet.

Claim 28(Original). The process of claim 26, wherein the environment site includes: a contaminated aqueous solution.

Claim 29(Original). The process of claim 26, wherein the environment site includes: a contaminated water selected from at least one of: ground water and surface water.

Claim 30(Original). The process of claim 26, wherein the environment site includes: a contaminated wetlands.

Claim 31(Original). The process of claim 26, wherein the environment sites includes: a contaminated soil.

Claim 32(Original). The process of claim 26, wherein the environment site includes: a contaminated air.

Claim 33(Original). The process of claim 32, wherein the contaminated air includes: the step of

contaminating the air environment by spraying the pollutant onto the excised plant part.

Claim 34(Original). The process of claim 26, wherein the pollutant includes: arsenite.

Claim 35(Original). The process of claim 26, wherein the pollutant includes: arsenate.

Claim 36(Original). The process of claim 26, wherein the pollutant portion includes: approximately 1,961 to approximately 4,066 mg/kg of arsenic per plant part.

Claim 37(Currently Amended). The process, according to claim 26, wherein said fern plant is of the family ~~Pteridaceae~~ Pteridaceae.

Claim 38(Original). The process, according to claim 26, wherein said fern plant is of the family *Adiantaceae*.

Claim 39(Original). The process, according to claim 26, wherein said fern plant is *Adiantum raddianum*.

Claim 40(Original). The process, according to claim 26, wherein said fern plant is of the genus *Pteris*.

Claim 41(Original). The process, according to claim 26, wherein said fern plant is *Pteris cretica parkerii*.

Claim 42(Original). The process, according to claim 26, wherein said fern plant is a *Pteris cretica* albo-lineata.

Claim 43(Original). The process, according to claim 26, wherein said fern plant is a *Pteris cretica* mayii.

Claim 44(Original). The process, according to claim 26, wherein said fern plant is a *Pteris vittata*.



Claim 45(Original). The process, according to claim 26, wherein up to approximately 100% of arsenic in the environment site is being removed.

Claim 46(Currently Amended). A process for removing a pollutant through ground plant part, comprising the steps of:

excising a part of a live fern plant selected from the group consisting of ~~Pteridaceae, Adiantaceae, Aspleniaceae, Dryopteridaceae~~ Pteridaceae, Adiantaceae, Aspleniaceae, Dryopteridaceae, and ~~Oleandracea~~ Oleandracea;

grounding the plant part into a ground up parts of biomass;

removing a portion of the pollutant through contact with the ground up parts of the biomass.

Claim 47(Original). The process of claim 46, wherein the plant part includes: a leaflet.

Claim 48(Currently Amended). The process of claim 46, wherein the ground up parts of the biomass is: fresh ground up parts of the biomass.

Claim 49(Currently Amended). The process of claim 46, wherein the ground up parts of the biomass is: air-dried ground up parts of the biomass.

Claim 50 Currently Amended. The process of claim 46, wherein the ground up parts of the biomass is: freeze dried ground up parts of the biomass.

Claim 51(Original). The process of claim 46, wherein the pollutant includes: arsenite.

Claim 52(Original). The process of claim 46, wherein the pollutant includes: arsenate.

Claim 53(Canceled).